

ABSTRACT OF THE DISCLOSURE

A communications system includes a physical layer hardware unit and a processing unit. The physical layer hardware unit is adapted to communicate data over a communications channel in accordance with assigned transmission parameters. The physical layer hardware unit is adapted to receive an incoming signal over the communications channel and sample the incoming signal to generate a digital received signal. The processing unit is adapted to execute a software driver including program instructions adapted to extract control codes from the digital received signal, generate an authentication code, and transfer the control codes and the authentication code to the physical layer hardware unit. The physical layer hardware unit is adapted to signal a security violation in response to the control codes being inconsistent with the authentication code. A method for identifying security violations in a transceiver includes receiving digital data over a communications channel; extracting control codes from the digital received signal; generating an authentication code; transferring the control codes and the authentication code to a physical layer hardware unit of the transceiver; configuring assigned transmission parameters of the physical layer hardware unit based on the control codes; and signaling a security violation in response to the control codes being inconsistent with the authentication code.